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10/541,672

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Hugues Lefevre

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EXAMINER

GREEN, TELLY D

ART UNIT

PAPER NUMBER

2822

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/541,672 | <b>Applicant(s)</b><br>LEFEVRE, HUGUES |  |
|                              | <b>Examiner</b><br>TELLY D. GREEN    | <b>Art Unit</b><br>2822                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-24 and 27-30 is/are rejected.
- 7) ☒ Claim(s) 25, 26 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

Claims 12-21 have been cancelled, and replaced by newly presented claims 22-31. Action on the merits is as follows:

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims **22** is rejected under 35 U.S.C. 102(b) as being anticipated by Zenker et al. (Zenker) (**English translation of Publication DE10019888**).

In regards to claim 22, Zenker discloses (**Figs. 2A-4**) two glass sheets (**page 4, 5<sup>th</sup> full paragraph to end of page, page 6, lines 1-4**) and one or more thermoplastic interlayers (**page 4, 5<sup>th</sup> full paragraph to end of page**), characterized in that light emitting diodes are inserted between the two glass sheets (**page 4, 5<sup>th</sup> full paragraph to end of page**), a connecting circuit (**page 1, 4<sup>th</sup> paragraph from the end, page 3 in it's entirety, page 2, page 6, paragraph beginning with "The characteristic curves..."**, [age 7, **Figs. 3, 4**) being formed from a least one conductive layer deposited on one face of the glass sheets or of the thermoplastic interlayers (**page 1, 4<sup>th</sup> paragraph from the end, page 3 in it's entirety, page 6, paragraph beginning with "The characteristic curves..."**), the conductive layer being divided in at least 2 distinct areas (**page 3, first paragraph**), each area being bound to an electrode (conductor through which current enters or leaves) (**page 3 in it's entirety, page 6, paragraph beginning with "The characteristic curves..."**, items, 5, 7, 9).

Claims **23-24 and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Zenker et al. (Zenker) (**English translation of Publication DE10019888**).

**In regards to claim 23**, Zenker discloses the claimed invention but does not specifically disclose that the conductive layer has a thickness in the range of between 0.02 and 0.5 micro/between 0.2 and 0.4 micro.

However, the applicant has not established the critical nature of the conductive layer having a thickness in the range of between 0.02 and 0.5 micro/between 0.2 and 0.4 micro. “The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.” In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have various ranges for the purpose of having a sufficient thickness that would necessitate the use of sufficient heat and pressure to attach one or more electronic devices (LEDs).

**In regards to claim 24**, Zenker discloses the claimed invention but does not specifically disclose that the conductive layer has a resistance in the range of between 2 and 80, 10 and 80, or 12 and 20  $\Omega/\text{sq.}$ .

However, the applicant has not established the critical nature of the conductive layer having a resistance in the range of between 2 and 80, 10 and 80, or 12 and 20  $\Omega/\text{sq.}$  “The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. In such a situation, the applicant must show

that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.” In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have various ranges for the purpose of having a sufficient range of resistance that would necessitate the use of various voltages.

**In regards to claim 27**, Zenker discloses electronic components (**page 4, third paragraph, page 7, 2<sup>nd</sup> full paragraph, Fig. 3**), but does not specifically disclose the electrical components have a thickness less than or equal to 3mm or less than or equal to 0.1 and 1.2mm.

However, the applicant has not established the critical nature of the electrical components having a thickness less than or equal to 3mm or less than or equal to 0.1 and 1.2mm. “The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.” In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have various ranges for the purpose of having a sufficient thickness that would allow the use of more electronic devices/components (LEDs).

Claims **28-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Zenker et al. (Zenker) (**English translation of Publication DE10019888**) in view of Schaffer (**US Patent 6,283,613 B1**).

**In regards to claim 28**, Zenker discloses several LEDs semiconductor chips, but does not specifically disclose a casing.

Schaffer discloses an array of LEDs in a casing (**col. 4, lines 51-55, claim 1**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings above for the purpose of luminosity, protection, space, cost and a thermal connection for heat conduction away from the LED and semiconductor.

**In regards to claim 29**, Zenker's invention as modified by Schaffer discloses the claimed invention except the casing is dimensioned such that the length and/or a width are at least 10/20/40-times larger than its thickness.

However, the applicant has not established the critical nature of the length and/or a width being at least 10/20/40-times larger than its thickness (open ended range). "The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range." *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have various ranges for the purpose providing a case with the necessary length/width to cover or protect the electronic components/chips.

**In regards to claim 30**, Zenker's invention as modified Schaffer discloses the claimed invention but does not specifically disclose that the casing is dimensioned such that the length and/or a width in the range between 5 and 100mm/15 and 75mm/ 25 and 50mm.

However, the applicant has not established the critical nature of the casing having dimensions such that the length and/or a width are in a range between 5 and 100mm/15 and 75mm/ 25 and 50mm.. "The law is replete with cases in which the difference between the claimed

invention and the prior art is some range or other variable within the claims. In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.” In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have various ranges for the purpose providing a case with the necessary length/width to cover or protect the electronic components/chips.

### ***Allowable Subject Matter***

Claims **25, 26 and 31** are objected to as being dependent upon a rejected base claim, but would be allowable if “zones have been insulated from the rest of the layer by narrow insulating bands”...“zone of the conductive layer insulated from the rest of the conductive layer by narrow bands” was rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments with respect to claims 22-31 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references are cited for disclosing related limitations of the applicant's claimed and disclosed invention.

**Varaprasad et al. US Patent 5,724,187 and Publication 2002/0041443 A1**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TELLY D. GREEN whose telephone number is (571)270-3204. The examiner can normally be reached on Monday thru Friday 7:30 AM - 5:00 PM EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on 571-272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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June 7, 2008